

22 July 1955

25X1

APD Progress Report on Masonry Drilling

I. Wall Drilling

A. Diamond Core Drills

1. APD representative contacted National Bureau of Standards, Industrial Division, Mineral Products Laboratory.
 - a. NBS demonstrated diamond core drilling in concrete.
2. APD informed Engineering Division of NBS contact and passed information on diamond core drills to ED for their pipe pusher project at [REDACTED]

25X1

B. Ultra Sonic Drilling

1. APD presented problem to NBS.
 - a. NBS's opinion was that ultra sonic drilling in non-homogenous material was not too feasible and very inefficient.
 - b. APD possesses a report of a study of ultra sonic drilling made by Wilhem Lehfelddt, a German, which substantiates NBS's opinion.

C. Hi-Temperature Heating

1. APD obtained a report prepared at [REDACTED] for ONR on the use of hi-temperature torches for drilling. The report wasn't promising, but was called to the attention of CD.

25X1

D. Composite head tool

1. Mr. Wildhack, Office of Basic Instrumentation, NBS, has proposed a composite head-burning, quenching, drilling tool. NBS is very interested in such a device. This information has been given to CD and direct contact between CD and OBI will be set up.

E. Ultra Sonic Drilling Proposal

008632

DOC 7	REV DATE 22 July 80	BY 052447
ORIG COMP 056	GPI 56	TYPE 3C
ORIG CLASS 5	PAGES 2	REV CLASS C
JUST 22	NEXT REV 2010	AUTH: HR 10.2

X

E. Ultra Sonic Drilling Proposal

1. [] has submitted a proposal
for the evaluation of noiseless drilling methods and
the development of the most promising method.

25X1

- a. [] proposes to:

25X1

- (1) Examine all possible solutions
- (2) Test to determine best method
- (3) Develop and deliver a useable piece of field equipment

- b. Proposal will be submitted to Masonry Drilling
Panel on its 3 August meeting.

II. Wall Measurement Gauges

A. Ultra sonic thickness gauge

1. Mr. Wildhack, OBI, NBS, is doing an informal 3-4 months'
study on ultra sonic thickness gauges. His conclusions
will contain the feasibility of using ultra sonic gauges,
types of equipment, and where equipment can be procured.

B. Neutron Backscattering Gauge

1. Mr. Wildhack, OBI, NBS, has information on a neutron
backscattering device for wall measurements. This
device, using a miniature Van der Graef generator for
power, is said to be more efficient than the radium
beryllium type. Information on the neutron backscattering
device will be given to CD.

[]
TSS/APD

25X1

Distribution:

Orig. - [] TSS/CD
2 - APD

25X1

AWS/bb